

One predicts — and may even believe — likelihoods such that org should be forced to choose action one wants it to choose — for different reasons, or for less exaggerated reasons. AFCIN estimate.

1) One tends to believe what one wants to believe. Special cases:

- x a) One wants to believe that actions with good expectations are available.
  - x b) " " " " " the best consequences of chosen action will occur.
  - x c) ~ that the chosen action was the best available.
  - x d) ~ that rejected alternatives, esp. that favored by rivals, would have been bad.  
(perhaps because of uncertainties).
  - y e) ~ that the current policy is still the best current alternative.
  - y f) ~ that there is no need for positive decision or action now.
  - y g) that past advice one gave was good.
  - y h) that a past estimate was sound.
  - x i) that a current or proposed strategy involves little risk.
  - x j) that the outcomes of current alternatives, and particularly of a chosen action, are unambiguous, nearly certain.
  - y k) that the ~~the~~ current strategy is good or acceptable (no need to search for new alternatives) (not merely "best available").
  - y l) that one's current views, beliefs, "image", are sound (theory).
  - y m) that environment is unthreatening, safe, & other players are benevolent, & similar to oneself.
  - y n) what one's superior wants to believe and hear; what will favor his policy, improve one's security.
- Much apparently "pessimistic" estimation is really wishful in one of the above ways; other "pessimistic" prediction appears wishful in terms of:

17) private consequences/desires as opposed to organizational outcomes/goals;

o) unconscious desires, or unadmitted desires.

p) " or unadmitted aggressive wishes against self or organization.

r) desire for events that will scare or shake superior into "correct" action.

X — Tendencies of the operator, planner, decision-maker, in general (even one-shot leader)

y — Special tendencies of the bureaucrat: who has been in office, has a history of past advice and decisions, is committed to a current policy, and wants to stay in office avoid decision or change.

## Useful thinking

Distinguish between homeostasis of the image, and usefulness.  
What is the evidence by which we "test" hypotheses. We select the "relevant" or "reliable" messages from a mass of "noise."  
When messages conflict, none of the "reasonable" hypotheses could have generated all of them.

Hyp: a significant change in a hypothesis/belief/prob. dist. is one which would lead to a shift in our ordering of actions, or in "optimal" action.

Hyp: under ambiguity, we tend to select/interpret signals so as to minimize their "significance" (similar to - but different from - hyp. that we interpret them so as to minimize their information content) (? Does a single message have info content? Its effect on "a priori probs"?); i.e. to reinforce our current choice of action.

Separate tendency: we select so as to reinforce what we want to believe (which is often - above - what we do believe - "for practical purposes") (another special case: raises the apparent value of the decision problem. Hyp: sometimes we "want to believe" estimates that lower the value of the problem (1) to confirm past prediction, advice; 2) to justify indecision, inaction; 3) to conform to superior's views; 4) to raise "inconspicuous" value, private value, 5) to make choice easy. Finally, "persecution" affects only certain actions which are regarded as non-optimal "anyway"; this estimate confirms that, makes it "obvious."

Wishful thinking.

Act of "pessimistic" estimate: Does it change the estimator's choice of the "optimal" act? (In particular, does it favor a) "inaction" or (b) some act he previously wanted to do "for other reasons"?)

Having chosen, we want to believe that we are doing "the right thing" even more than we want to believe that it will turn out well, or that a good outcome is possible. These two desires ~~can~~ may conflict. Hence, we may "accept" a "pessimistic" forecast which lowers the value of the problem, but which confirms our previous choice of action or inaction (i.e. it lowers payoff to that action, but lowers payoffs to other actions even more).

Hence, "pessimism" which leads to a new action is less suspect of wishfulness than one which doesn't.

The "action" in question may be advised, or recommended program. (RAND).

(Special cases: scientist, systems analyst; pessimism or new recommendation, new belief).

## Lessons from Pearl Harbor:

1. Can't conclude from current SU posture that an attack is impossible. But can assume it would be an attack with limited force, mainly planes; missile attack in Europe also possible. But can assume that attack on US is not now contemplated, & posture would look very different.

K. has set out to deter us from using nuclears tactically in Europe; here, probably from resisting at all.

His weakness: assumption that it wouldn't take much to deter us from strategic attack.

Calculate: 1) Measures necessary to protect against a realistic near-term SU attack.

2) Measures to convince SU we are confident of our deterrence.

3) Measures to improve outcome of a US strategic response to SU aggression.

4) Measures to convince SU of this possibility.

5) Measures to build up conventional strength, so we need not rely at all on threat of tactical nuclears, & as little as possible on threat of strategic response.

6)  
Recognize mutual deterrence on level of tactical nuclears; but not on strategic level. Build up US - SAC forces in Europe.

Our problem is the use K is now making of his threat; we should fear and defend against the effects of his threat, not merely the effects of his carrying it out. Why is it plausible enough? How make it less plausible?

(Think in a Cuban)

Shake Khrushchev's confidence: a) in his "luck" (Dead jockey).

b) in our passivity, incompetence, gentleness

c) in optimistic forecasts

What does K think is necessary to achieve his maximum goals?

d) in US-SU "equality."

Be suspicious of estimates; see uncertainty

Is K really making total effort? Straining economy?

What would "optimistic" (low) reasonable estimates of SU power be?

(An estimate that estimator regards as "surprising," "inexplicable"

perhaps though "clearly indicated" may be exceptionally reliable.)

What are ambitious SU goals? Write a BNSP for SU.

What US effort would allow us comfortable security?

Viloz + Yolanda Dance Studio

339 N. Beverly Drive

CR-48267

Tuesday at 7

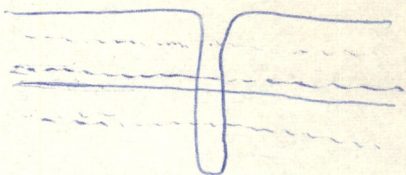
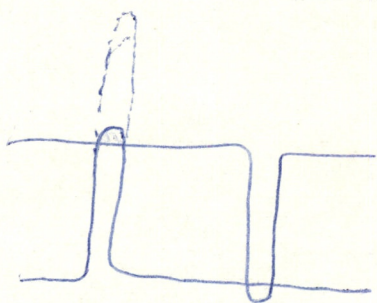
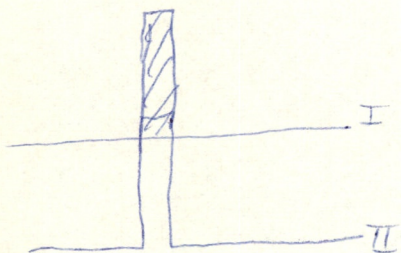
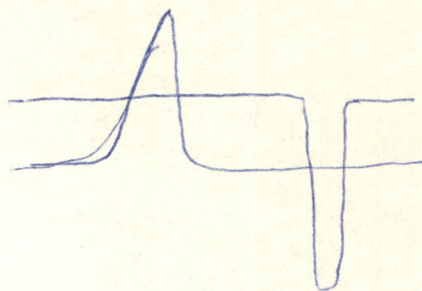
10 private lessons

10 group

\$5

Note: missile gap in US favor.

emphasis on numbers in estimating

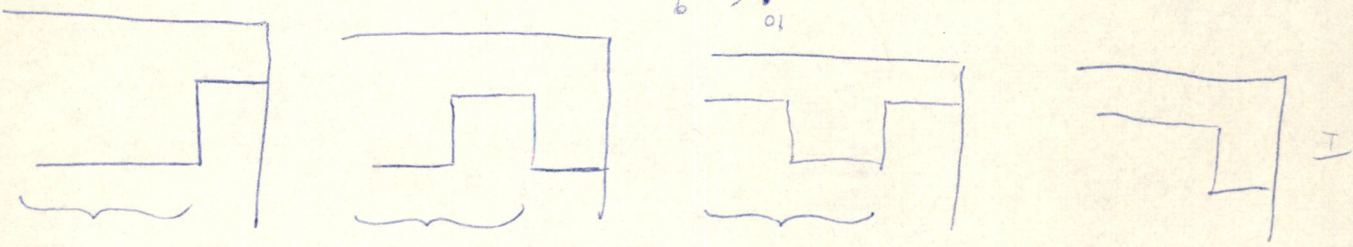
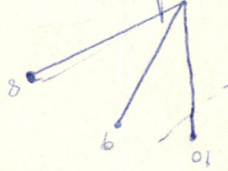
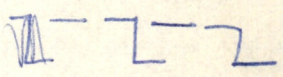
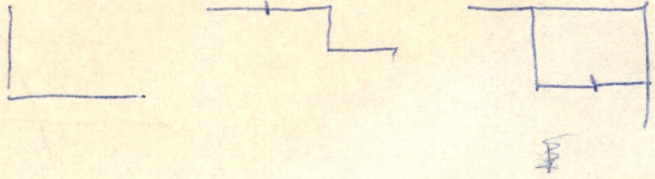


In conflict situation, ~~a policy~~ a "fit" in a policy may have to be assigned higher-than-random prob (though not necessarily prob=1)

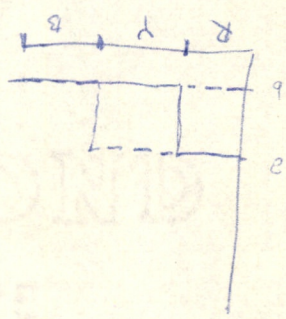
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|----|----|----|---|----|---|---|---|---|---|
| 10 | 10 | 10 | 0 | 10 | 0 | 0 | 0 | 1 | 0 |
| 1  | 11 | 1  | 1 | 1  | 9 | 0 | 9 | 0 | 9 |

|  |  |  |  |    |    |    |   |    |   |   |   |   |    |   |
|--|--|--|--|----|----|----|---|----|---|---|---|---|----|---|
|  |  |  |  | 10 | 10 | 10 | 0 | 10 | 0 | 0 | 0 | 0 | 10 | 0 |
|  |  |  |  | II | 0  | 1  | 1 | 10 | 0 | 9 | 9 | 9 | 0  | 9 |

~~If no event has~~ If some event has  $\text{prob} > \frac{1}{2}$ , ~~II~~ II may be better  
 If no event has  $> \frac{1}{2}$ , II will be worse  
 unless "total ignorance", when II will be better.



|   |   |   |   |   |   |
|---|---|---|---|---|---|
| o | o | 9 | 2 | r | 9 |
| o | e | e | a | 9 | a |
| o | o | 9 | 9 | e | 9 |
| o | e | e | 9 | 9 | e |



# Predictions:

1.  $X \cup \bar{X}$  (ambiguous) (sampled version)

$Y \cup \bar{Y}$  (unambiguous) (known version)

a)  $X \cup Y$  ( $Y > X$ )

Axiom 1 & 2  $\Rightarrow Q(X, Y) = Q(\bar{X}, \bar{Y})$

b)  $Y > X$  and  $\bar{Y} > \bar{X}$

Axiom 3  $\Rightarrow Q(X, Y) = Q(\bar{Y}, \bar{X}) \Rightarrow Q(X, Y) = 1/2$

2.  $X$  ambiguous

$Y$  unambiguous

~~a)  $X < X$  then  $X > Y$~~

~~b)  $X < X$~~

Suppose  $est(X) = est(Y)$

a)  $est(Y) < 1/2 \Rightarrow X > Y$

b)  $est(Y) > 1/2 \Rightarrow Y > X$

violates sure thing for union of events.

3 (p. 9)  ~~$I \cup II$~~  (do not see this, since  $a > b$  should be  $II > I$ )

$III \cup IV$

$V \cup VI$

p. 11 also

~~would suggest that Savage predicts  $V > IV$~~

~~Savage predicts  $V > III$  since for any event  $V \geq III$  at his yellow is better, at set  $III \cup IV$  by assumption,  $V > IV$  contrary to assertion.~~

4. Decomposition axiom violation.



$$P(a \times b, a \bar{x} b) = P(a, b) Q(x, \bar{x}) = \gamma_1$$

$$P(a \gamma b, a \bar{\gamma} b) = Q(\gamma, \bar{\gamma}) = \gamma_2$$

a) Yes  $P(a \times b, a \gamma b) = P(a, b) Q(x, \gamma) + P(b, a) Q(\gamma, x) = P(b \gamma a, b \bar{x} a)$

b) No

c)

p.2. Note, I do not need <sup>axis 3</sup>  $a \times b$  or  $b \bar{x} a$ , which is required for resolution of  $a$

p.4:  $Q(x, \gamma) > 1/2$   $Q(\bar{x}, \bar{\gamma}) > 1/2$

Need axes 2 & 3 to get contradiction; not clear whether it is 2 or 3 that is at fault.

⇒ p.8. I was uncounted as to whether fuzziness would cause a violation of axioms, ~~the~~ one has to explore this first. — Presumably some axiom are satisfied.

⇒ Chymin's single signs are very small — 6 judged per person.

analysis

↓  
 $P(a \times b, a \gamma b) > 1/2$  if  $Q(x, \bar{x}) \approx 1/2$ ,  $Q(\gamma, \bar{\gamma}) = 1/2$

~~$P(a \bar{x} b, a \bar{\gamma} b) < 1/2$  if  $Q(x, \bar{x}) \approx 1/2$~~

$P(a \bar{x} b, a \bar{\gamma} b) > 1/2$

↓  
 $Q(x, \gamma) = Q(\bar{x}, \bar{\gamma})$  by Thm 11.

$Q(x, \gamma) > 1/2$   $Q(\bar{x}, \bar{\gamma}) > 1/2$  ← OK.

⇒ Preliminary study need to see if  $a \times b = b \bar{x} a$ .

Signs: X-unambiguous, Y-analysis  $Q(x, \bar{x}) > 1/2$ ,  $a > b$

$P(a \times b, a \gamma b) > 1/2$

$P(a \bar{x} b, a \bar{\gamma} b) < 1/2$

⇒ p.5 counts on Luce do not seem correct relative to Chymin. what about statistical tests of significance.

✗ p.6. Luce, Ransay do not get normal probs.

⇒ p.7 need the post posed operational meaning.

|    |   |    |   |
|----|---|----|---|
| 9  | 0 | 9  | ← |
| 9  | 2 | 2  |   |
| 2  | 9 | 9  |   |
| 9  | 2 | 9  |   |
| 9  | 9 | 2  | → |
| 8  | 1 | 8  |   |
| 34 |   | 34 |   |
| 60 |   | 60 |   |

(9, 0, 9) ←

(9, 2, 2)

(2, 9, 9)

(9, 2, 9)

(9, 9, 2)